# Toolkit for Elderly Suicide Prevention

**County of San Diego**
**Health and Human Services Agency**
**Division of Emergency Medical Services**

**Funding provided by the State of California Emergency Medical Services (EMS) Authority Under Special Project Grant #EMS-2058**

**Toolkit for Elderly Suicide Prevention**
**Outline**

I. Overview/Introduction

a. Older Adult Suicide Fact Sheet
b. The Role Of EMS Personnel In Suicide Prevention
c. Introduction: The Toolkit For Elderly Suicide Prevention

II. Data Workbook

a. Getting Started With Data
b. Collecting your Local Suicide Data
c. Finding Relevant Local Suicide Data
d. Using the suicide data workbook
e. Suicide data workbook – blank
f. Suicide data workbook – California and county data 1996 - 2001

III. Links To Other Resources

a. Consumer Resources
b. Advocacy/Resource Organizations
c. National Statistics
d. California Statistics
e. Suicide Prevention Resources
f. Media Guidelines
g. Coalition Resources
h. Evaluation

# SUICIDE AND OLDER ADULTS

**IN CALIFORNIA…**

Adults 65 and older made up **11% of the population** in 2000
Adults 65 and older made up **20% of suicides** in 2000

Older White men had the highest suicide rates:
62 suicides per 100,000 men 85 years and older in 2000; 6 times the overall rate for men and women of all ages combined.

**(Source: data calculated from CA DHS EPIC fatal injury data table builder, dept. of finance population estimates, 2000)**

**SUICIDE ATTEMPTS**

**One older adult commits suicide for every four who injure themselves non-fatally. For all ages combined, this figure is one per 25 to 200 non-fatal attempts.**

**HOSPITAL DISCHARGES**

**In 2000, there were 1.3 older adults discharged from California hospitals with non-fatal self-inflicted injuries to every one that died from suicide. For all ages combined, 5.3 patients were discharged with non-fatal self-inflicted injuries for each suicide death.**

**RISK FACTORS**

Depression is the most common risk factor for suicide.

Depression is not a normal part of healthy aging, but is associated with some of the processes that go along with aging, such as:

- Illness, especially cancer and chronic pain
- Lack of mobility
- Social isolation
- Loss of loved ones, including spouses and lifelong friends
- Divorce
- Substance abuse
- Inability to participate in the activities that they enjoyed at younger ages

**METHODS**

78% of elderly men who committed suicide used firearms, compared with 53% of suicides for men of all ages, and 34% of suicides among elderly women.

**CONTACT WITH HEALTH CARE PROFESSIONALS**

75% of older adults who committed suicide were seen by a health care professional in the month leading up to the suicide

20% of older adults who committed suicide were seen by a health care professional within 24 hours of the suicide

## THE ROLE OF EMS PERSONNEL IN SUICIDE PREVENTION

As many as 75% of older adults who committed suicide were seen by a physician in the month leading up to the suicide, and 20% were seen by a physician in the day before they committed suicide.

--American Association of Suicidology

One study of people who committed suicide within 4 weeks after contact with a health professional found that suicide intent was discussed in only 22% of cases.

(Isometsz ET et al., 1995. Am. J. Psychiatry, 152(6): 919-22)

Emergency medical personnel have a unique perspective of the patient that other health care professionals lack. Seeing the patient's home environment may reveal vital clues about their risk for suicide, such as living alone, access to lethal means such as firearms, and drug or alcohol abuse.

# Introduction: The Toolkit for Elderly Suicide Prevention

The toolkit for elderly suicide prevention is designed to be an internet-based resource to guide local emergency medical agencies (LEMSAs) in California through the process of collecting and analyzing their suicide data, identifying risk factors for elderly suicide, and locating resources available for suicide prevention. This project will help the user identify what data resources are available at the county level and how to access them.

This written draft contains the information that will be posted on the California EMS Authority website, as well as a sample from the interactive suicide data workbook.

It is our hope that this will be a useful tool for the prevention of suicide by helping to increase public awareness of suicide as a public health problem and guiding users to resources that will lead to effective suicide prevention programs.

## Getting Started With Suicide Data

### Why do we need data?

In the National Strategy for Suicide Prevention (NSSP), the very first goal is to promote awareness that suicide is a public health problem that is preventable. This starts with gathering data on baseline rates of suicide within our communities. "Promoting awareness," means sharing this data with local leaders and educating the community about suicide risk factors.

Objective 18-1 in Healthy People 2010 is to reduce the suicide rate to 5.0 suicides per 100,000 population. In order to make progress toward this goal, it is important to know at the local level how suicide is distributed according to factors such as age, race/ethnicity, gender, and geographic location so that interventions can be planned in the most efficient way possible.

### Types of Information

The types of information you need to obtain to determine the extent of suicide in your community include: age, race/ethnicity, gender, nature of injury, and external cause of injury. You may also want to collect information on geographic location, cost, and key contributing factors such as alcohol or drug use.

### Form of the Data

Data is typically presented as rates or as frequency counts. Frequency counts tell you "how many" and are a simple count of the number of events that have occurred. An example of a frequency count would be the number of older adults who committed suicide using firearms. The advantage of having a frequency count is that it answers the most common form of question you tend to get from policy makers and the general public. They want to know "how many." Frequency counts can also serve as a reality check if you have a very small population or a very large population. The major problem with frequency counts is that you cannot directly compare the number of people who die from suicide across populations such as different counties unless you account for the differences in the sizes of each population.

In order to accurately compare the frequency of injuries among two counties, you need to convert your frequency counts into rates. Rates are frequencies which have been converted to numbers which share a common denominator, usually frequency of occurrence per 100,000 population. For instance, assume your population of adults greater than 85 years old is 1,500 with a frequency count of 5 deaths from suicide and your population of 45 to 64 year olds is 25,000 with 20 deaths from suicide. If you compared frequencies directly, you would assume that the 45 to 64 year olds were at greater risk of death from suicide. However, if you calculate the frequencies per

common denominator, you find that the greater than 85 year olds are actually at greater risk.

5/1,500 = rate/100,000 rate = 333 per 100,000

20/25,000 = rate/100,000 rate = 80 per 100,000

In order to convert a frequency count into a rate or vice versa, you need to know the size of the population. The formula for converting a frequency count into a rate is: the number of injuries in a population per time period divided by the total number of people in that population in the same time period multiplied by a common denominator, usually 100,000.

$$\frac{\text{Number of Injury Deaths in the Population per Time Period}}{\text{Total Number of People in the Population per Time Period}} \times 100{,}000 = \text{Rate}$$

With a rate, you can directly compare the rates of suicide among population groups to determine which populations are at greater risk of injury.

The Suicide Data Workbook will automatically calculate suicide rates per 100,000 population if you supply it with your population data. This will allow you to directly compare the extent of the suicide problem across age groups.

You should be aware that the National Center for Health Statistics (NCHS) considers rates based on 20 or fewer deaths to be statistically unreliable and to be regarded with caution. The rationale is basically that a rate calculated from three deaths per population group cannot be generalized to a larger population with as much accuracy as a rate calculated from thirty deaths. This is because an increase from 3 to 4 deaths has a greater impact on the rate than an increase from 30 to 31 deaths. A very small numerator means that each death takes on a greater statistical significance and thus the rate has a greater relative standard error. As with any statistical procedure, when you calculate rates you have to determine the amount of possible error you are comfortable with. There is nothing magical about a numerator of 20, this is just the level of statistical error that NCHS is comfortable with.

To deal with the problem of a small numerator, or small number of deaths, the NCHS recommends that you combine multiple years of data to produce a larger numerator or number of deaths.

**Do You Trust the Data?**

Differences between agencies in collection methodology, definitions and tabulation methods can lead to differences in frequencies or rates. Two separate agencies may

collect the same data, but these numbers may not match perfectly. Therefore, you should be cautious when comparing data from different sources. Make sure you have comparable data by asking how the data was collected and how the population and injury events were defined.

In light of the complexities involved with comparing data from different sources, you are well advised to use the same source when comparing suicide data across different populations or when comparing data for different injuries among the same population.

How much you trust the data depends upon how much you trust the way the data was collected and tabulated. Very few statisticians or epidemiologists would claim that their data sets were perfect. The very nature of social research assumes a certain level of imperfection through human error. Errors can occur in diagnoses on medical records, through keypunching, or in the gathering of demographic information. For example, Indian Health services consistently reports a significant number of individuals who are born as Native Americans and die as Whites.

## Collecting Your Local Suicide Data

To access your county's suicide data from the California Department of Health Services:

1. Go to the California Department of Health Services injury data website:

   www.applications.dhs.ca.gov/epicdata/default.htm.

2. Navigate to Self-Inflicted Injuries

3. Select custom tables, mortality statistics or morbidity (depending on whether you want completed or attempted suicides.

4. Use the pull-down menus to select your county, year, and 5-year age groups

5. Display results by: age (5-year groups) and gender

6. Copy the resulting table into an excel file, or print out.

To access your county's population data:

Hopefully you have access to your county's population data by age and gender for the year that you're investigating. If not, here's a procedure for finding this data:

1. Open the California Department of Finance Demographics website: www.dof.ca.gov/HTML/DEMOGRAP/data.htm

2. Click on Race/Ethnic Population with Age and Sex Detail, 1970-2040

3. The next page contains extremely important information about the data you are about to access. PRINT THIS OUT or copy and paste it somewhere where you'll have it handy for later.

4. Click on Go To Data Files

5. Scroll down until you find the name of the county that you want data for.

6. RIGHT click on the file name, and select Save Target As…

7. Save the file somewhere convenient.

8. Open the file using MS excel or another spreadsheet program that you're comfortable with. Remember when you're opening it to select Files of type: text files (or all files).

9. Excel will walk you through the import process.

    a. Data type = fixed width; click next

    b. the next window will show your data, with lines where excel thinks the breaks should be. Adjust these until they're right. You may need to scroll down a bit to make sure that the line doesn't go right through the middle of the word "Female," for example, and if you live in one of those two-word counties like Contra Costa or San Bernardino, you'll want to make sure that the line isn't between those two words. Click next when you're satisfied that you've set it up right.

    c. You shouldn't need to do anything with the next screen, so click Finish, and watch excel put all of your data into a spreadsheet.

**10.** Insert a row at the very top so you can add the field names. Type in the field names that you printed out in step 3, that is:

    1. County name:
       Positions 1-15
    2. Year:
       Positions 17-20
    3. Sex (Gender)
       Positions 22-27
    4. Age:
       Positions 29-31
    5. Total Population:
       Positions 33-40
    6. White Population:
       Positions 42-49
    7. Hispanic Population:
       Positions 51-58
    8. Asian & Pacific Islander Population
       Positions 60-67
    9. Black Population:
       Positions 69-76
    10. American Indian Population
       Positions 78-85

11. Click on Data…Filter…Autofilter. An arrow should appear next to each of your field names.

12. Click on the arrow by the Year column, and select the year that you're interested in.

13. Select this array of data, copy, and paste to another worksheet.

**14.** You may want to group this data into five-year (or other) age ranges. To do this, set up another table with the desired age groupings, then use the sum function to fill in this data.

## Finding Relevant Local Suicide Data

State and national sources are a convenient way to obtain general statistics about suicide in your area and to compare your rates with those of other areas. Occasionally, though, you may need more detailed or current data that are not available from these resources. If this is the case, it might be useful to perform an inventory of local data. Some suicide data resources that may be more readily available on the local level include the following:

- Medical Examiner/Coroner's Office
- Hospital Emergency Departments
- Trauma Departments
- Prehospital Ambulance Response Data
- Mental Health Departments
- Local Crisis Hotlines

When assessing each of these data resources, some important information to obtain includes:

- Who is the primary contact for the data?
- Are data available at the individual level (e.g., patient), or only at the aggregate (group) level?
- How current is the data?
- Who collects the data?
- What is the purpose for which the data are collected?
- If a data request is required, how should the request be made (e.g., fax, e-mail, telephone)?
- What is the typical amount of time that it would take to get a response to a data request?
- Is there a charge for data, and if so, how much?
- If data are available at the individual level, are they available in electronic form, and in what format (e.g., ASCII, dBase, excel, or some other program)?
- If individual data are available, can specific fields be obtained as opposed to all the fields in the database (e.g., demographics, injury codes, zip codes).
- Are the data population-based, that is, representing all of the events (deaths, patients, crisis calls) in the county, or do they only represent those associated with a particular facility or agency? Note: population rates can only be calculated if the data are population-based.